

Industrial Technologies Program
Energy Efficiency and Renewable Energy • U.S. Department of Energy

R&D 100 Awards

Industrial Technologies Program-Supported R&D 100 Award Winners

1991

Petroleum Sludge Treatment Process
Pacific Northwest National Laboratory

Planar Waveguide Spectrometer
Pacific Northwest National Laboratory

X-Ray Tomographic Microscope
Lawrence Livermore National Laboratory

1992

CFC/HFC Ratiometer
Oak Ridge National Laboratory

**Solar Detoxification of Hazardous
Organic Materials in Groundwater**
National Renewable Energy Laboratory,
Sandia National Laboratory

1993

Data Gator Flowmeter
Yellowstone Environmental Science

1995

Waste Tire Utilization (Chemicals)
Composite Particles, Inc.

Exo-melt Process
Oak Ridge National Laboratory

Polymer Filtration System
Los Alamos National Laboratory, Boeing
Defense and Space Group

**New Methods for Making Silicon Carbide
Powders**
National Renewable Energy Laboratory,
Golden Technologies Company

1996

**Oxygen-Enriched Air Staging
Technology (Glass)**
Institute for Gas Technology

1997

**Plastics, Fibers, & Solvents from
Biosynthetically Derived Organic Acids
(Chemicals)**

Oak Ridge National Laboratory, National
Renewable Energy Laboratory, Pacific
Northwest National Laboratory, Argonne
National Laboratory, Applied
CarboChemicals, University of Illinois -
Urbana, A.E. Staley, Engelhardt and New
Horizon Engineering

**New Technology for Sulfide Reduction
and Increased Oil Recovery (I&I)**
The LATA Group

1998

Life-Cycle Advantage Software
Pacific Northwest National Laboratory

**MACLEAN/MICARE Solvent Cleaning
Systems (Chemicals)**
Pacific Northwest National Laboratory,
MiCELL Technologies

**Rapid Solidification Process Tooling
(Currently funded by Metal Casting,
Materials)**
Idaho National Energy and Environmental
Laboratory

1999

**Robotics Inspection System for Storage
Tanks (Petroleum, NICE³)**
Solex Environmental Systems

**Development of Exo-melt Process
Enables Melting of Nickel Aluminides in
Industry (AIM)**
Oak Ridge National Laboratory

2000

**Process to Recover and Clean Flexible
Polyurethane Foam from Automobile
Shredder Residue (Chemicals)**
Argonne National Laboratory

**Characterization Tool for the Wood and
Pulp Industry, Near-Infrared Sensor for
Moving Wood Chips (Forest Products)**
National Renewable Energy Laboratory

2002

**Supercritical Purification of Compounds
used for Combinatorial Chemical Analysis
(Chemicals, NICE³)**
Berger Instruments

**Advanced Electrodionization Technology
for Product Purification, Waste Recovery,
and Water Recycling (Chemicals)**
Argonne National Laboratory

Horizon Sensing (Mining)
Stolar Horizon, Inc.

**Fibrous Monolithic Composites as Wear
Resistant Components for Mining
(Mining)**
Advanced Ceramics Research Corp.



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